CLAIM AMENDMENTS

Please amend the claims as follows:

Claims 1-60 (canceled)

61. (currently amended) A method of imaging a substrate in a dual-beam secondary electron emission microscope primarily with secondary electrons, comprising:

   a) exposing said substrate to a dual beam comprising an influx of relatively high-energy electrons, said high-energy electrons having an energy selected to cause secondary electrons to leave said substrate,

   b) exposing said substrate to and an influx of relatively low-energy electrons, said electrons having a sufficiently low energy so that a substantial portion of said electrons are reflected from a surface of said substrate and both an energy and a current density profile selected to maintain surface charge present on said substrate at a predetermined level,

   [[c)]] b) filtering the flux of said secondary electrons and said low-energy electrons reflected from the surface of said substrate in order to select most or all of said secondary electrons, or a portion of said secondary electrons, and to reject most or all of said reflected electrons,

   [[d)]] c) focusing said secondary electrons to create an image of said substrate in a plane of a detector, and

   [[e)]] d) detecting said secondary electrons, thereby imaging a portion of said substrate.

62. (original) The method of Claim 61, wherein said filtering is achieved by selecting said secondary electrons, or a portion of said secondary electrons, based on their angular distribution from the surface of said substrate.

Claims 63-65 (cancelled).

66. (currently amended) A method of imaging a substrate in a dual-beam secondary electron emission microscope primarily with reflected electrons, comprising:

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a) exposing said substrate to <u>a dual beam comprising</u> an influx of relatively high-energy electrons, said high-energy electrons having an energy selected to cause secondary electrons to leave said substrate,

b) ~~exposing said substrate to~~ <u>and</u> an influx of relatively low-energy electrons, said electrons having a sufficiently low energy so that a substantial portion of said electrons are reflected from a surface of said substrate and both an energy and a current density profile selected to maintain surface charge present on said substrate at a predetermined level,

[[c)]] <u>b)</u> filtering the flux of said secondary electrons and said low-energy electrons reflected from the surface of said substrate in order to select most or all of said reflected low-energy electrons, or a portion of said reflected low-energy electrons, and to reject most or all of said secondary electrons,

[[d)]] <u>c)</u> focusing said reflected low-energy electrons create an image of said substrate in a plane of a detector, and

[[e)]] <u>d)</u> detecting said reflected low-energy electrons, thereby imaging a portion of said substrate.

67. (original) The method of Claim 66, wherein said filtering is achieved by selecting said reflected low-energy electrons, or a portion of said reflected low-energy electrons, based on their angular distribution from the surface of said substrate.

68. (previously presented) The method of Claim 66, wherein said filtering rejects most or all of said reflected low-energy electrons which are reflected at or near a specular angle and selects most or all of said reflected low-energy electrons which are scattered away from the specular angle.

69. (currently amended) A method of imaging a substrate <u>in a dual-beam secondary electron emission microscope by detecting both secondary and reflected electrons</u>, comprising:

a) exposing said substrate to <u>a dual beam comprising</u> an influx of relatively high-energy electrons, said high-energy electrons having an energy selected to cause secondary electrons to leave said substrate,

b) ~~exposing said substrate to~~ <u>and</u> an influx of relatively low-energy electrons, said electrons having a sufficiently low energy so that a substantial portion of said

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electrons are reflected from a surface of said substrate and both an energy and a current density profile selected to maintain surface charge present on said substrate at a predetermined level,

[[c)]] <u>b)</u>   filtering said secondary electrons and the portion of said relatively low-energy electrons which are reflected from the surface of said substrate, in order to select most or all of said secondary electrons which are emitted at angles other than perpendicular to the substrate and most or all of said reflected electrons which are scattered away from the specular angle, and to reject most or all of said secondary electrons which are emitted at an angle perpendicular to the substrate and most or all of said reflected electrons which are scattered at the specular angle,

[[d)]] <u>c)</u>   focusing said selected secondary electrons and said selected reflected electrons to create an image of said substrate in ~~the~~ a plane of a detector, and

[[e)]] <u>d)</u>   detecting said selected secondary electrons and selected reflected electrons, thereby imaging a portion of said substrate.